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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,324	09/21/2005	Jean-Christophe Galland	1022702-000206	9177
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EXAMINER KOSACK, JOSEPH R				
ART UNIT 1626		PAPER NUMBER		
NOTIFICATION DATE 09/08/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ADIPFDD@bipc.com

Office Action Summary

Application No.

10/521,324

Applicant(s)

GALLAND ET AL.

Examiner

Joseph R. Kosack

Art Unit

1626

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 25-46 and 49-54 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 25-46, 49-51 and 53 is/are rejected.
- 7) ☒ Claim(s) 52 and 54 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date 5/27/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 25, 26, 28-46 and 49-53 are pending in the instant application.

Amendments

The amendment filed on May 27, 2008 has been acknowledged and has been entered into the application file.

Information Disclosure Statement

The Information Disclosure Statement filed on May 27, 2008 has been considered by the Examiner.

Previous Claim Objections

Claims 25-48 were previously objected to for containing elected and non-elected subject matter. The non-elected subject matter has been cancelled, and the objection is withdrawn.

Previous Claim Rejections - 35 USC § 112

Claims 25-46 were previously rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Applicant has traversed the rejection on the grounds that the Ni(cod)₂ is a precursor and not the catalyst itself, and that the claims do have an adequate written description as the catalyst is adequately described.

Firstly, the Examiner understood that the Ni(cod)₂ is the catalyst precursor and not the catalyst itself. Secondly, as the claims are drawn to a process, it is not enough just to show various possibilities of catalysts, but support must be shown for the genus to be able to hydrocyanate a compound with at least one ethylenic unsaturation. The

specification only shows working examples of the process where a $\text{Ni}(\text{cod})_2$ precursor is reacted with the ligand to make the catalyst, which is then used in the hydrocyanation process. In the beginning of the instant specification, two French patents are described using nickel, palladium, and iron catalysts for the hydrocyanation process. This is a far cry from using any transition metal in the catalyst in order to hydrocyanate a carbon-carbon double bond. It is extremely well known in the art that changing the transition metal in an organometallic catalyst can impact the activity, and possibly the utility, of the resulting complex. Nickel has very different properties than other transition metals, e.g. zinc and titanium, molybdenum, etc..., especially in the number of available d-electrons surrounding the metal in the outer electron shell. Therefore, switching nickel for another transition metal may lead to a catalyst that has no hydrocyanation activity. In order to show possession of the hydrocyanation process for all transition metals, one of skill in the art would need to see a representative number of working examples covering a wide array of d-electron counts around the transition metal. While working examples are not a requirement under 35 U.S.C. 112, first paragraph, they can be extremely helpful in showing adequate written description in fields that are unpredictable.

The rejection is maintained.

Previous Claim Rejections - 35 USC § 102

Claim 47 was previously rejected under 35 U.S.C. 102(b) as being anticipated by Kuliev (CAS Accession Number 1964:67371).

Applicant has cancelled the claim, and the rejection is withdrawn.

Previous Double Patenting Rejections

Claims 25-46 were previously rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-17 of U.S. Patent No. 7,253,298. Applicant has deleted the conflicting subject matter, and the rejection is withdrawn.

Claim Objections

Claims 53 and 54 are objected to because of the following informalities: there is no period at the end of either claim. Appropriate correction is required.

Claims 52 and 54 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 25-46, 49-51, and 53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

In the instant case, a process for hydrocyanating a hydrocarbon compound containing at least one ethylenic unsaturation using a catalyst comprising a transition metal and an organic ligand of formula I is claimed. The specification only provides

support for using $\text{Ni}(\text{cod})_2$ as the transition metal compound to make the catalyst composition for the instant process.

In the beginning of the instant specification, two French patents are described using nickel, palladium, and iron catalysts for the hydrocyanation process. This is a far cry from using any transition metal in the catalyst in order to hydrocyanate a carbon-carbon double bond. It is extremely well known in the art that changing the transition metal in an organometallic catalyst can impact the activity, and possibly the utility, of the resulting complex. Nickel has very different properties than other transition metals, e.g. zinc and titanium, molybdenum, etc..., especially in the number of available d-electrons surrounding the metal in the outer electron shell. Therefore, switching nickel for another transition metal may lead to a catalyst that has no hydrocyanation activity. In order to show possession of the hydrocyanation process for all transition metals, one of skill in the art would need to see a representative number of working examples covering a wide array of d-electron counts around the transition metal. While working examples are not a requirement under 35 U.S.C. 112, first paragraph, they can be extremely helpful in showing adequate written description in fields that are unpredictable. With the vast array of transition metal starting materials that can be included in the catalyst composition, e.g. TiO_2 , FeCl_2 , FeCl_3 , $\text{Mn}(\text{acac})_3$, etc..., Applicant has not provided a representative number of examples which leads one of skill to conclude that Applicant was not in possession of the entire claimed invention at the time of filing.

Applicant can overcome this rejection either by providing declaration evidence or by deleting the subject matter that does not have firm written description support in the specification.

Conclusion

Claims 25-46, 48-51, and 53 are rejected. Claims 52-54 are objected to.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph R. Kosack whose telephone number is (571)272-5575. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571)-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Golam M. M. Shameem, Ph.D./
Primary Examiner, Art Unit 1626

/Joseph R Kosack/
Examiner, Art Unit 1626